

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant (s): Lanny D. Schmidt et al.

Serial No.: 09/388,218

Filed: September 1, 1999

For: AUTOTHERMAL PROCESS FOR THE PRODUCTION OF OLEFINS

Group Art Unit: 1764

Examiner: Unknown



I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING  
DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS  
FIRST CLASS MAIL WITH SUFFICIENT POSTAGE IN AN ENVELOPE  
ADDRESSED TO: ASSISTANT COMMISSIONER FOR PATENTS,  
WASHINGTON, DC 20231, ON:

November 18, 1999

DATE OF DEPOSIT

Star Carmoney

PRINT OR TYPE NAME OF PERSON SIGNING CERTIFICATE

*Star Carmoney*

SIGNATURE OF PERSON SIGNING CERTIFICATE

11-18-99

DATE OF SIGNATURE

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to Applicant's duty of disclosure under 37 CFR §1.56, the  
Examiner's attention is directed to the information identified in the attached Form  
PTO 1449. A copy of all cited patents and printed publications is enclosed.

In addition to the above, the Examiner's attention is directed to the  
following co-pending patent applications:

Serial No. 09/388,219 (Attorney Docket No. 44466), filed September 1, 1999,

Serial No. 09/388,220 (Attorney Docket No. 44307), filed September 1, 1999,

Serial No. 08/821,384, filed March 20, 1997,

Serial No. 09/146,409, filed September 3, 1998,

Serial No. 09/253,265, filed February 19, 1999,

Serial No. 08/636,816, filed April 23, 1996, and

**MAILED**

NOV 18 1999

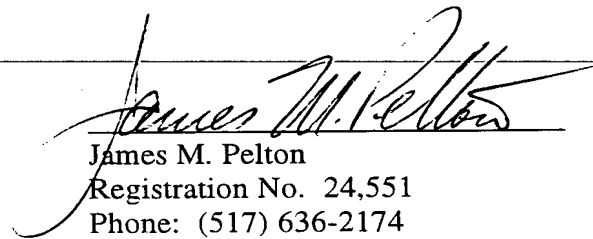
By: HT

Serial No. 08/931,825, filed September 16, 1997.

The Examiner is reminded that the instant application claims the benefit of U.S. Provisional Application Serial No. 60/099,042, filed September 3, 1998.

The Examiner is requested to review the materials cited herein and formulate his/her own understanding thereof.

Respectfully submitted,



James M. Pelton  
Registration No. 24,551  
Phone: (517) 636-2174

P. O. Box 1967  
Midland, MI 48641-1967

JMP/sc

## INFORMATION DISCLOSURE STATEMENT

(Use Several Sheets if necessary)

ATTY DOCKET NO.

44149

SERIAL NO.

09/388.218

APPLICANT

Lanny D. Schmidt et al.

FILING DATE

September 1, 1999

GROUP

1764

J1050 U.S. PTO  
10/011015

12/05/01

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE IF APPROPRIATE
	5,905,180	5/1999	Yokoyama, et al.			
	5,817,596	10/1998	Akporiaye, et al.			
	5,654,491	8/1997	Goetsch, et al.			
	5,648,582	7/1997	Schmidt, et al.			
	5,639,929	6/1997	Bharadwaj, et al.			
	5,382,741	1/1995	Astbury, et al.			
	5,105,052	4/1992	Font Freide, et al.			
	4,940,826	7/1990	Font Freide, et al.			
	5,633,421	5/1997	Iezzi, et al.			
	5,625,111	4/1997	Astbury, et al.			
	5,677,260	10/1997	Dongara, et al.			

## FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION YES   NO
EP-B1-0,178,853	1990	Europe			X
WO 90/06282	1989	PCT			X

## OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, Place of Publication, Etc.)

	C. Yokoyama, S. S. Bharadwaj, and L. D. Schmidt, "Platinum-Tin and Platinum-Copper Catalysts for Autothermal Oxidative Dehydrogenation of Ethane to Ethylene," <i>Catalysis Letters</i> , 38 (1996), 181-188.
	M. Huff and L. D. Schmidt, "Production of Olefins by Oxidative Dehydrogenation of Propane and Butane Over Monoliths at Short Contact Times," <i>Journal of Catalysis</i> , 149 (1994), 127-141.
	M. Huff and L. D. Schmidt, "Ethylene Formation by Oxidative Dehydrogenation of Ethane over Monoliths at Very Short Contact Times," <i>Journal of Physical Chemistry</i> , 97 (1993), 11.815-11.822.

EXAMINER

DATE CONSIDERED

\*EXAMINER:

Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to Applicant.

# **INFORMATION DISCLOSURE STATEMENT**

*(Use Several Sheets if necessary)*

ATTY DOCKET NO.

44149

SERIAL NO.

09/388,218

APPLICANT

Lanny D. Schmidt et al.

FILING DATE

September 1, 1999

GROUP

1764

## **U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE IF APPROPRIATE
	5,658,497	8/1997	Kumar, et al.			
	5,593,935	1/1997	Golunski, et al.			
	5,527,979	6/1996	Agaskar, et al.			
	5,478,528	12/1995	Golunski, et al.			
	5,436,383	7/1995	Le Peltier, et al.			
	5,306,684	4/1994	Itoh, et al.			
	5,258,567	11/1993	Kerby, et al.			
	4,902,849	2/1990	McKay, et al.			
	4,897,253	1/1990	Jenkins			
	4,886,928	12/1989	Imai, et al.			
	4,886,926	12/1989	Dessau, et al.			

## **FOREIGN PATENT DOCUMENTS**

DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION YES I NO

## **OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, Place of Publication, Etc.)**


EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to Applicant.

## INFORMATION DISCLOSURE STATEMENT

(Use Several Sheets if necessary)

ATTY DOCKET NO.

44149

SERIAL NO.

09/388,218

APPLICANT

Lanny D. Schmidt et al.

FILING DATE

September 1, 1999

GROUP

1764

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE IF APPROPRIATE
	4,844,837	7/1989	Heck, et al.			
	4,788,371	11/1998	Imai, et al.			
	4,652,687	3/1987	Imai, et al.			
	4,551,574	11/1985	Imai, et al.			
	3,670,044	6/1972	Drehman, et al.			
	3,584,060	6/1971	Rausch			
	3,308,181	3/1967	Pitzer			
	5,073,657	12/1991	Warren			
	4,886,932	12/1989	Leyshon			
	4,295,817	10/1981	Caplin, et al.			

## FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION YES   NO

## OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, Place of Publication, Etc.)


EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to Applicant.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant (s): Lanny D. Schmidt et al.

Serial No.: 09/388,218

Filed: September 1, 1999

For: AUTOTHERMAL PROCESS FOR THE PRODUCTION OF OLEFINS

Group Art Unit: 1764

Examiner: Unknown

#3  
J1050 U.S. PTO  
10/011015  
12/05/01

I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING  
DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS  
FIRST CLASS MAIL WITH SUFFICIENT POSTAGE IN AN ENVELOPE  
ADDRESSED TO: ASSISTANT COMMISSIONER FOR PATENTS,  
WASHINGTON, DC 20231, ON:

MARCH 22, 2000  
DATE OF DEPOSIT

Star Carmoney

PRINT OR TYPE NAME OF PERSON SIGNING CERTIFICATE

*Star Carmoney*  
SIGNATURE OF PERSON SIGNING CERTIFICATE

*3/22/00*  
DATE OF SIGNATURE

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Pursuant to Applicant's duty of disclosure under 37 CFR §1.56, the  
Examiner's attention is directed to the information identified in the attached Form  
PTO 1449.

In addition, the following information is brought to the attention of the  
Examiner:

Each item of information contained herein was cited in a communication from  
a foreign patent office in a counterpart foreign application not more than three (3)  
months prior to the filing date hereof.

**MAILED**

MAR 21 2000

By: *HT*

A copy of all cited patents and printed publications is enclosed. The Examiner is requested to review each reference and formulate his own understanding thereof.

Respectfully submitted,



James M. Pelton

Registration No. 24,551

Phone: (517) 636-2174

P. O. Box 1967  
Midland, MI 48641-1967

JMP/sc

## INFORMATION DISCLOSURE STATEMENT

(Use Several Sheets if necessary)

ATTY DOCKET NO.

44149

SERIAL NO.

09/388,218

APPLICANT

Lanny D. Schmidt et al.

FILING DATE

September 1, 1999

GROUP

1764

31050 U.S. PTO  
10/011015  
12/05/01

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE IF APPROPRIATE
	5,248,251	9/1993	Dalla Betta, et al.			

## FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION YES   NO

## OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, Place of Publication, Etc.)

	C. Yokoyama, S.S. Bharadqaj, and L.D. Schmidt, "Platinum-Tin and Platinum-Copper Catalysts for Autothermal Oxidative Dehydration of Ethane to Ethylene," <i>Catalysis Letters</i> , 38 (1996), 181-188.

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to Applicant.